

IT 200 INTRODUCTION TO PROGRAMMING

MCPHERSON COLLEGE

SPRING 2015

INSTRUCTOR: Mark Hunter
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OFFICE HOURS: 2-3pm Mon, 3-4pm Tues, 10–11 am Wed/Fri; or by appointment

Feel free to contact me if you have questions about the material, course concerns, upcoming absences, or just to chats. I will be on campus at various times throughout the week so you can schedule an appointment or just drop by. E-mail or text me anytime and try to call during reasonable hours. We can schedule additional office hours and appointment times as needed.

COURSE MEETING TIME: Monday, 11am – 12pm, Lectures in Melhorn Hall, Room 123
Thursday, 9am – 11am, Lab in Melhorn Hall, Room 123

REQUIREMENTS MET:

This course is required of all mathematics majors and is a fascinating elective for any student interested in using computers in the real world.

REQUIRED TEXT:

1. Building Java Programs: A Back to Basics Approach, 3/E, © 2013, by Stuart Reges.
ISBN-13: 9780133360905, Publisher: Addison-Wesley

NOTE: Do **NOT** register for Video Notes until instructed to do so!

2. Introduction to Programming Using Java, Sixth Edition Ver 6.0, © 1996-2011, by Eck.
Free online: <http://math.hws.edu/javanotes/index.html>

The lectures do not provide enough time to cover all material, so you are expected to read the textbooks to supplement lectures and clarify concepts.

COMPUTER SOFTWARE

The recommended software is the Java Development Kit (JDK) version 6+ & Eclipse IDE. This software will be provided and is free of charge. It will work with PC & MAC systems.

You must be able to access your student account on the McPherson Archway Portal (LMS) because additional class materials will be posted on-line. Other on-line references, practice tools, and quizzes will also be provided on the web.

REQUIRED MATERIALS:

A USB flash drive of 1GB or larger will be required



ELECTRONICS POLICY:

Do not use cell phones, radios, music players, etc. during class time. Laptops may only be used as part of the class. Cell phones must be placed in silent mode and texting is not permitted during class. If you use a cell phone, I will ask you to leave, and you will be marked as absent for that class period. If a cell phone is seen during a test or quiz day, you will be asked to leave and will receive **an automatic grade of zero** on that test or quiz. Talk to me before class if there is a reason you must be contacted.

COURSE DESCRIPTION:

This course provides an introduction to computers and computer programming. This is not strictly a course in Java programming but Java will be used as the main programming language. IT200 primarily focuses on structured programming and common computational problem solving techniques. No prior programming experience is assumed, although students should know the basics of using a computer (e.g., using a web browser and word processing program) and should be competent with math through Algebra 1. The course will begin with editing programs in a simple text editor environment and will move to a development environment, Eclipse IDE, used by many major businesses today.

This class is a pre-requisite for IT201.

COURSE GOAL:

To introduce students to programming structure and development environments. The improvement of program design skills, implementation, and programming style is emphasized through work with increasingly complex program structures and projects.

The content of this course will assist teacher education candidates in becoming service-oriented professionals who effectively blend the art and science of teaching. Candidates will become familiar with content knowledge and effective application of material through examples and projects. A variety of instructional methods applicable to the teaching profession will be modeled by the instructor and expected from candidates in presentations.

COURSE OBJECTIVES:

- Students will explain engineering codes & ethics, programming types & architecture, source code, object code, & the function of a compiler.
- Proper design & debugging techniques will be demonstrated in lab sessions.
- Knowledge of the concepts of programming environments, variables, primitive types, array structures, objects, classes, methods, subroutines, control structures, console/file IO, GUI, applets, mathematical applications, documentation, and style will be shown through program design and coding assignments.
- Experience in the Eclipse professional level IDE will be gained through java programming.

DISCLAIMER:

Changes in the syllabus or schedule may be made during the term by announcement in class or on-line. It is the student's responsibility to check on-line regularly for additional course information. The distribution of grades between homework assignments, class participation, quizzes, and the final exam will not change. There is a lot of material – we will concentrate on what will help you the most in the real world.

DISABILITY/EMERGENCY CLAUSE:

If you have any condition or situation that you feel prevents you from doing your best work in this course, it is your responsibility to bring that condition or situation to the attention of the instructor or the college administration. Effort will be made to assist you in your learning in this course. It is important that we are informed early in the term so that we can make appropriate arrangements for that assistance. Immediate changes to course work requirements will only be applied in the event of emergency situations.

ASSESSMENT:

Course grades will be based on daily homework assignments, class participation, 3 quizzes, and the final exam.

Unless explicitly stated in advance, quizzes and exams are closed-book and closed-notes. Only the specified programs may be used when a computer is required, otherwise no electronic devices may be used. Make-up assignments, quizzes, and exams will not be given except in case of a serious emergency. Evidence that you were physically unable to take an exam will be reviewed to determine if a make-up is warranted. If you will miss an assignment, quiz or exam due to an excused campus activity then you must complete the assessment in advance or it will not be accepted.

Homework –Homework will generally be assigned with about one week to complete. There is often overlap in due dates in order to allow questions about an assignment to be addressed during a class period before it is due. Programs will be graded on "external correctness" (behavior) and "internal correctness" (style and design). Late homework will be accepted up to one week late with a penalty of 10% every 24 hours. Each student may submit (2) late homework assignments without penalty if the homework is submitted before the next class period. Late homework questions will not be accepted after they are reviewed in class. Disputes about homework grading must be made within 2 weeks of receiving the grade. Homework will be in paper and electronic format.

* Your homework average will account for 55% of your final grade.

Each homework assignment will be graded:

50% Correct Operation (it works)

25% Structure and Design

20% Documentation

05% Style

Class Preparation and Participation – You will be asked to investigate some topics between classes and provide an informal presentation occasionally. A discussion on these topics and general classroom discussions should involve all students - you are part of everyone's learning experience. There will also be in-class worksheets.

* Your preparation and participation grade will account for 7% of your final grade.

Quizzes – There will be three quizzes over the course of the semester. Quiz dates will be announced in advance.

* Your quiz average will account for 18% of your final grade.

Examination - There will be a comprehensive final examination.

* This examination will account for 20% of your final grade.

GRADING SCALE:

Your final grade will be the average of the above. The standard 10-point scale will be used:

A = 90% – 100%, B = 80% – 89%, C = 70% – 79%, D = 60% – 69%, F = 0% – 59%

CLASSROOM DECORUM:

Students are expected to show respect for their fellow students, in this course, and at the College. Please arrive on time, do not leave early and do not talk in class except in the context of classroom discussion.

ATTENDANCE POLICY:

Regular attendance is expected at all times. College courses require your participation and can become extremely difficult if class time is missed. However, because unexpected situations do arise, you will be allowed two session absences, which I will count as “freebies”. For students with more than two unexcused session absences, the policy is as follows:

- 3 absences: an “excessive absence” warning letter is sent
- 4 absences: final course grade decreased by one letter grade
- 5 absences: **automatic withdrawal** from the course

Being present for class is defined as being on time for class and remaining for the entire period. Students coming late to class will be marked as absent. Be warned.

Exceptions to the above policy may be made at the discretion of the instructor. This usually occurs only in the case of **documented** excused absences, such as medical emergencies (with a doctor’s note), or other major unforeseen occurrences. Efforts to make-up this time will be expected. Normal sick days, vacations & conflicts between class/work do not count as excused.

A course grade of F will be assigned to any student with 8 or more absences. This policy will be applied whether or not the absences are excused or unexcused.

ACADEMIC INTEGRITY AND COLLABORATION:

Each student is expected to act in complete compliance with the college policy regarding academic honesty. A student caught cheating on any test or assignment will receive a zero grade. At the discretion of the instructor, an automatic course grade of F may be assigned in extreme cases. Programming assignments must be completed individually; all code you submit must be your own work. You may discuss general ideas of how to approach an assignment, but should never involve details of how to code a solution. You must abide by the following rules:

- You may not work as a partner on an assignment unless assigned as partners.
- You may not show another student your solution to an assignment, nor look at his/her solution for any reason until after assignment grades have been finalized.
- You may not have another person describe in detail how to solve it. You also may not provide such help to another student.
- You may not post your homework code online to ask others for help. This includes public message boards, forums, file sharing sites and services, or any other online system.

Under our policy, a student who gives inappropriate help is equally guilty with one who receives it. Instead of providing such help to someone who does not understand an assignment, point them to other class resources such as lecture examples, the textbook, LMS, or instructor. Please be careful, and contact the instructor if you are unsure whether a particular behavior falls within our policy.

FINAL SCHEDULE:

May 12 Tuesday Final Exam: 10:30am-12:30pm *

*NOTE: You must notify me before Spring Break, March 14, if there is any acceptable reason that you need to take the final exam at a different time.

ONE FINAL NOTE:

Introduction to computers and computer programming is not intended to be a difficult course. However, I recognize that new programs and languages can be challenging. Please feel free to visit me in my office if you require extra help outside of class time. I will be happy to help you out and I can arrange a schedule that meets your needs. If problems arise, please let me know. I would like this to be an enjoyable semester for all of us!